

REMARKS

Claims 1-20 are pending in the application. The Office Action rejects claims 1-20 as anticipated by, or obvious in view of, U.S. Patent No. 3,100,282, to Fletcher (“Fletcher”). For at least the reasons articulated in this paper, the Applicant disagrees, and submits that the Office Action fails to set forth *prima facie* rejections of the claims.

More specifically, the Office Action rejects claims 1-5, 12-14, and 18-19 as anticipated by Fletcher under 35 U.S.C. § 102(b). *See* Office Action at 2. In addition, the Office Action rejects claims 6-11, 15-17, and 20 as obvious over Fletcher pursuant to 35 U.S.C. § 103(a). *See id.* at 4-5.

With respect to independent claim 1, the Office Action asserts: “Fletcher teaches a converter in a radio-frequency (RF) apparatus, the converter comprising a feedback circuitry (30, 16, 10, 15, see figures 1-2) having a shielded input 32 and a shielded output 34, wherein the shielded input and the shielded output inherently tend to reduce interference in the converter.” Office Action at 2. The Office Action further states that “the broad claimed limitation of converter reads on the transducer [10] of Fletcher.” *Id.* at 6. The Applicant respectfully disagrees.

At the outset, Fletcher’s transducer 10 cannot teach the claimed “converter.” The claimed “converter” comprises a “feedback circuitry.” Fletcher’s transducer 10, according to Fletcher’s own description, does not appear to include a feedback circuit. Fletcher states that “[i]n measuring systems, it is often necessary to connect one or more remotely located transducers or signal sources to an output device, with the transducers producing small magnitude D.C. voltages in response to changes in some physical phenomenon, such as temperature, pressure, rate of flow, and the like.” Fletcher at col. 1, lines 13-18. Furthermore, Fletcher’s figures 1 and 2 show transducer 10 as a box that drives a filter 11 via leads 15 and 16. To the Applicant’s reading, nothing in Fletcher teaches or suggests that transducer 10 includes the claimed “feedback circuitry.”

Furthermore, claim 1 recites that the “feedback circuitry,” which is part of the “converter,” “[has] a shielded input and a shielded output.” Even if Fletcher’s transducer 10 were a “converter,” to the Applicant’s reading, nothing in Fletcher teaches that transducer 10 has “a shielded input and a

shielded output.” Thus, Fletcher fails to anticipate or render obvious independent claim 1. Consequently, Fletcher also fails to anticipate or render obvious those claims that depend on claim 1, i.e., claims 2, 15, 16, and 17.

With respect to claim 3, the Office Action states “Fletcher teaches a method of reducing interference in a non-linear circuit in a radio-frequency (RF) apparatus, wherein the non-linear circuit 11, 12, 14 (fig. 2) has an input 32 and an output 34, the method comprising: shielding 32 an input of the non-linear circuit 11, 12, 14; and shielding 34 an output of the non-linear circuit 11, 12, 14 (fig. 2).” Office Action at 2-3. The Applicant respectfully disagrees.

To the Applicant’s reading, nothing in Fletcher suggests a non-linear circuit in an RF apparatus. The Applicant assumes that, by referring to “the non-linear circuit 11, 12, 14 (fig. 2),” the Office Action means to refer to elements 11, 12, and 14 in Fletcher’s figure 2. Fletcher, however, does not teach that elements 11, 12, and 14 are non-linear. In fact, Fletcher’s figure 2 shows element 11 as a filter that includes inductors 36, 37, 38, and 39, and capacitor 40. Furthermore, element 12 constitutes an amplifier, and element 14 a filter that has an inductor and a capacitor. Inductors and capacitors constitute linear elements, and nothing in Fletcher appears to state or suggest otherwise. In addition, to the Applicant’s reading, nothing in Fletcher teaches or suggest that amplifier 12 is a non-linear circuit. Thus, Fletcher fails to anticipate or render obvious independent claim 3. Consequently, Fletcher also fails to anticipate or make obvious claims 4, 18, 19, and 20, which depend on claim 3.

Finally, with respect to independent claim 5, the Office Action asserts that:

Fletcher teaches a radio-frequency (RF) apparatus, comprising:
a non-linear signal processing circuit (30, 16, 10, 15, fig. 2);
a first shield 32 that shields an input of the non-linear signal
processing circuit (30, 16, 10, 15); and
a second shield 34 that shields an output of the non-linear
signal processing circuit (30, 16, 10, 15, fig. 2).

Office Action at 3. Again, the Applicant respectfully disagrees.

The Applicant assumes that, by referring to “non-linear signal processing circuit (30, 16, 10, 15, fig. 2)” or “non-linear signal processing circuit (30, 16, 10, 15),” the Office Action means to

refer to elements 30, 16, 10, and 15 in Fletcher's figure 2. Fletcher, however, does not teach that elements 30, 16, 10, and 15 are a "non-linear signal processing circuit."

As noted above, Fletcher's element 10 constitutes a transducer and, to the Applicant's reading of Fletcher, nothing in the reference suggests that the transducer is necessarily non-linear or a "non-linear signal-processing circuit." Elements 15 and 16 are simply leads or wires (see, e.g., Fletcher at col. 2, line 57 (referring to "a pair of leads 15, 16")), which constitute linear elements; they are not non-linear elements, much less "a non-linear signal processing circuit." Finally, numeral 30 in Fletcher refers to a "feedback point" (see, e.g., Fletcher at col. 3, lines 71-74) -- or a circuit node. One does not commonly think of circuit nodes as a "non-linear signal processing circuit" and, to the Applicant's reading, nothing in Fletcher teaches or suggests the contrary.

Accordingly, Fletcher fails to anticipate or render obvious independent claim 5. Consequently, Fletcher fails to anticipate or make obvious those claims that depend on claim 5, that is, claims 6-14.

In view of the above remarks, the Applicant respectfully submits that the presently pending claims are allowable. The Applicant therefore respectfully requests a prompt Notice of Allowance.

CONCLUSION

In view of the remarks above, the Applicant respectfully submits that the Office Action fails to set forth *prima facie* rejections of the claims, and that the claims are in allowable condition. Consequently, the Applicant respectfully requests favorable reconsideration and prompt issuance of a Notice of Allowance.

The Applicant believes that no fees other than the concurrently paid RCE fee are due. If any fees are due under 37 C.F.R. §§ 1.16-1.21 for any of the enclosed materials, however, the Commissioner may deduct such fees from (or credit any overpayment to) deposit account number 50-3813/SILA-122.

The Applicant invites the Examiner to contact the undersigned at the phone number indicated below with any questions or comments, or to otherwise facilitate expeditious and compact prosecution of the application.

Respectfully submitted,



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